

**WIND SPEED DATA**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Station:*** | **PETALING JAYA** | |  |  |  |  |  |  |
| ***Region:*** | ***CENTRAL*** |  |  |  |  |  |  |  |
| **Percentage frequencies of occurrence for concurrent wind direction** | | | | | | | | |
| **(degrees) and speed (m/s) within specified ranges [%]** | | | | | | | | |
| **Wind speed range** | | | | | | | | |
| **Direction** | **0.3-1.5** | **1.6-3.3** | **3.4-5.4** | **5.5-7.9** | **8.0-10.7** | **>10.7** | **Total** | **Mean Speed** |
| **Calm** |  |  |  |  |  |  | **11.9** |  |
| **Variable** | 0 | 0 | 0 | 0 | 0 | 0 | **0** |  |
| **N** | 9.5 | 2 | 0.1 | 0 | 0 | 0 | **11.5** | 1.1 |
| **NE** | 13.2 | 2.2 | 0.1 | 0 | 0 | 0 | **15.4** | 1 |
| **E** | 13.3 | 3.5 | 0.2 | 0 | 0 | 0 | **17** | 1.1 |
| **SE** | 6.2 | 4.7 | 0.2 | 0 | 0 | 0 | **11.1** | 1.5 |
| **S** | 4 | 2 | 0.1 | 0 | 0 | 0 | **6** | 1.3 |
| **SW** | 4.5 | 4.8 | 0.5 | 0 | 0 | 0 | **9.9** | 1.8 |
| **W** | 5.1 | 4.7 | 0.7 | 0.1 | 0 | 0 | **10.5** | 1.8 |
| **NW** | 2.9 | 0.9 | 0.1 | 0 | 0 | 0 | **3.9** | 1.2 |

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| --- | --- |
| **Direction** | **Mean Speed (m/s)** |
| **SE** | 1.5 |
| **S** | 1.3 |
| **SW** | 1.8 |
| **NW** | 1.2 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Station:*** | **BUTTERWORTH** | |  |  |  |  | |  | |
| ***Region:*** | ***NORTH*** | |  |  |  |  | |  | |
| **Percentage frequencies of occurrence for concurrent wind direction** | | | | | | | | | | |
| **(degrees) and speed (m/s) within specified ranges [%]** | | | | | | | | | | |
| **Wind speed range** | | | | | | | | | | |
| **Direction** | **0.3-1.5** | **1.6-3.3** | **3.4-5.4** | **5.5-7.9** | **8.0-10.7** | **>10.7** | **Total** | | **Mean Speed** | |
| **Calm** |  |  |  |  |  |  | **5.2** | |  | |
| **Variable** | 0 | 0 | 0 | 0 | 0 | 0 | **0** | |  | |
| **N** | 2.6 | 3.6 | 0.8 | 0.1 | 0 | 0 | **7.1** | | 2.1 | |
| **NE** | 8.2 | 7.2 | 1.3 | 0.3 | 0 | 0 | **17** | | 1.9 | |
| **E** | 13.4 | 13.5 | 1 | 0.1 | 0 | 0 | **28.1** | | 1.7 | |
| **SE** | 2.9 | 2.2 | 0.2 | 0 | 0 | 0 | **5.3** | | 1.6 | |
| **S** | 1.8 | 3.3 | 1.3 | 0.1 | 0 | 0 | **6.5** | | 2.4 | |
| **SW** | 1 | 2.8 | 2.2 | 0.1 | 0 | 0 | **6.1** | | 2.9 | |
| **W** | 1.3 | 5.3 | 3.7 | 0.2 | 0 | 0 | **10.5** | | 3 | |
| **NW** | 0.9 | 5.6 | 6.9 | 0.3 | 0 | 0 | **13.7** | | 3.4 | |

|  |  |
| --- | --- |
| **Direction** | **Mean Speed**  **(m/s)** |
| **N** | 2.1 |
| **S** | 2.4 |
| **SW** | 2.9 |
| **NW** | 3.4 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Station:*** | **KOTA KINABALU** | |  |  |  |  |  |  |
| ***Region:*** | ***SABAH*** | |  |  |  |  |  |  |
| **Percentage frequencies of occurrence for concurrent wind direction** | | | | | | | | |
| **(degrees) and speed (m/s) within specified ranges [%]** | | | | | | | | |
| **Wind speed range** | | | | | | | | |
| **Direction** | **0.3-1.5** | **1.6-3.3** | **3.4-5.4** | **5.5-7.9** | **8.0-10.7** | **>10.7** | **Total** | **Mean Speed** |
| **Calm** |  |  |  |  |  |  | **1.8** |  |
| **Variable** | 0 | 0 | 0 | 0 | 0 | 0 | **0** |  |
| **N** | 2 | 3.5 | 1.2 | 0 | 0 | 0 | **6.7** | 2.3 |
| **NE** | 1.4 | 1.4 | 0.5 | 0 | 0 | 0 | **3.4** | 2 |
| **E** | 7.6 | 26.1 | 1.1 | 0 | 0 | 0 | **34.8** | 2.1 |
| **SE** | 5.5 | 11.2 | 0.4 | 0 | 0 | 0 | **17.1** | 1.9 |
| **S** | 0.8 | 2.3 | 1.6 | 0.3 | 0 | 0 | **5.1** | 3.1 |
| **SW** | 1.1 | 3.3 | 2 | 0.5 | 0.1 | 0 | **7** | 3.1 |
| **W** | 7.4 | 5.5 | 1.1 | 0.1 | 0 | 0 | **14.1** | 1.8 |
| **NW** | 3.6 | 5.6 | 0.8 | 0 | 0 | 0 | **10.1** | 2 |

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| --- | --- |
| **Direction** | **Mean Speed (m/s)** |
| **N** | 2.3 |
| **S** | 3.1 |
| **SW** | 3.1 |
| **NW** | 2 |

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| ***Station:*** | **SENAI** |  |  |  |  |  |  |  |
| ***Region:*** | ***SOUTHERN*** |  |  |  |  |  |  |  |
| **Percentage frequencies of occurrence for concurrent wind direction** | | | | | | | | |
| **(degrees) and speed (m/s) within specified ranges [%]** | | | | | | | | |
| **Wind speed range** | | | | | | | | |
| **Direction** | **0.3-1.5** | **1.6-3.3** | **3.4-5.4** | **5.5-7.9** | **8.0-10.7** | **>10.7** | **Total** | **Mean Speed** |
| **Calm** |  |  |  |  |  |  | **15.8** |  |
| **Variable** | 0 | 0 | 0 | 0 | 0 | 0 | **0** |  |
| **N** | 17.6 | 7.5 | 2.8 | 0.3 | 0 | 0 | **28.3** | 1.6 |
| **NE** | 6.1 | 3.9 | 2.4 | 0.6 | 0 | 0 | **13** | 2.2 |
| **E** | 3.2 | 2.3 | 0.5 | 0.1 | 0 | 0 | **6.1** | 1.8 |
| **SE** | 1.5 | 2.2 | 0.5 | 0 | 0 | 0 | **4.2** | 2.1 |
| **S** | 2.1 | 4.8 | 1.9 | 0 | 0 | 0 | **8.9** | 2.4 |
| **SW** | 1.6 | 2.8 | 0.5 | 0 | 0 | 0 | **5** | 2.1 |
| **W** | 4.8 | 2.8 | 0.5 | 0 | 0 | 0 | **8.2** | 1.6 |
| **NW** | 7.7 | 2 | 0.2 | 0 | 0 | 0 | **9.9** | 1.1 |

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| --- | --- |
| **Direction** | **Mean Speed**  **(m/s)** |
| **NE** | 2.2 |
| **SE** | 2.1 |
| **S** | 2.4 |
| **SW** | 2.1 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Station:*** | **KUANTAN** | |  |  |  |  |  |  |
| ***Region:*** | **EAST COAST** |  |  |  |  |  |  |  |
| **Percentage frequencies of occurrence for concurrent wind direction** | | | | | | | | |
| **(degrees) and speed (m/s) within specified ranges [%]** | | | | | | | | |
| **Wind speed range** | | | | | | | | |
| **Direction** | **0.3-1.5** | **1.6-3.3** | **3.4-5.4** | **5.5-7.9** | **8.0-10.7** | **>10.7** | **Total** | **Mean Speed** |
| **Calm** |  |  |  |  |  |  | **12.1** |  |
| **Variable** | 0 | 0 | 0 | 0 | 0 | 0 | **0** |  |
| **N** | 15.8 | 10.7 | 1.4 | 0.1 | 0 | 0 | **28** | 1.6 |
| **NE** | 3.6 | 4.5 | 1.5 | 0 | 0 | 0 | **9.7** | 2.1 |
| **E** | 2.4 | 4.6 | 1.9 | 0 | 0 | 0 | **9** | 2.4 |
| **SE** | 3.1 | 2.5 | 0.3 | 0 | 0 | 0 | **5.9** | 1.6 |
| **S** | 4.9 | 6.9 | 1.6 | 0.1 | 0 | 0 | **13.5** | 2.1 |
| **SW** | 2.6 | 3.5 | 1.8 | 0.2 | 0 | 0 | **7.9** | 2.4 |
| **W** | 2.9 | 1 | 0.2 | 0 | 0 | 0 | **4.2** | 1.4 |
| **NW** | 5.3 | 3.4 | 0.6 | 0.1 | 0 | 0 | **9.3** | 1.6 |

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| --- | --- |
| **Direction** | **Mean Speed**  **(m/s)** |
| **N** | 1.6 |
| **NE** | 2.1 |
| **S** | 2.1 |
| **SW** | 2.4 |

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| ***Station:*** | **KUCHING** |  |  |  |  |  |  |  |
| ***Region:*** | **SARAWAK (SOUTH)** | | | | | | | |
| **Percentage frequencies of occurrence for concurrent wind direction** | | | | | | | | |
| **(degrees) and speed (m/s) within specified ranges [%]** | | | | | | | | |
| **Wind speed range** | | | | | | | | |
| **Direction** | **0.3-1.5** | **1.6-3.3** | **3.4-5.4** | **5.5-7.9** | **8.0-10.7** | **>10.7** | **Total** | **Mean Speed** |
| **Calm** |  |  |  |  |  |  | **4.5** |  |
| **Variable** | 0 | 0 | 0 | 0 | 0 | 0 | **0** |  |
| **N** | 2.1 | 4.8 | 3.2 | 0.1 | 0 | 0 | **10.2** | 2.7 |
| **NE** | 2.3 | 2.8 | 1.1 | 0.1 | 0 | 0 | **6.3** | 2.2 |
| **E** | 5.3 | 3.8 | 0.4 | 0 | 0 | 0 | **9.5** | 1.6 |
| **SE** | 7.9 | 6.4 | 0.8 | 0 | 0 | 0 | **15.2** | 1.7 |
| **S** | 10.8 | 6 | 1 | 0.1 | 0 | 0 | **17.9** | 1.6 |
| **SW** | 7.6 | 3.9 | 0.5 | 0.1 | 0 | 0 | **12.1** | 1.5 |
| **W** | 8.2 | 7 | 1.3 | 0.2 | 0 | 0 | **16.7** | 1.8 |
| **NW** | 2.5 | 3.2 | 1.7 | 0.2 | 0 | 0 | **7.6** | 2.4 |

|  |  |
| --- | --- |
| **Direction** | **Mean Speed (m/s)** |
| **N** | 2.7 |
| **NE** | 2.2 |
| **SE** | 1.7 |
| **NW** | 2.4 |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ***Station:*** | **MIRI** |  |  |  |  |  |  |  |
| ***Region:*** | **SARAWAK (SOUTH)** | | | | | | | |
| **Percentage frequencies of occurrence for concurrent wind direction** | | | | | | | | |
| **(degrees) and speed (m/s) within specified ranges [%]** | | | | | | | | |
| **Wind speed range** | | | | | | | | |
| **Direction** | **0.3-1.5** | **1.6-3.3** | **3.4-5.4** | **5.5-7.9** | **8.0-10.7** | **>10.7** | **Total** | **Mean Speed** |
| **Calm** |  |  |  |  |  |  | **3.3** |  |
| **Variable** | 0 | 0 | 0 | 0 | 0 | 0 | **0** |  |
| **N** | 1.9 | 3.3 | 1.8 | 0.2 | 0 | 0 | **7.2** | 2.5 |
| **NE** | 3.7 | 3.7 | 1.4 | 0.4 | 0 | 0 | **9.2** | 2.2 |
| **E** | 10.4 | 7.7 | 0.6 | 0 | 0 | 0 | **18.8** | 1.6 |
| **SE** | 6 | 6.3 | 0.8 | 0 | 0 | 0 | **13.2** | 1.8 |
| **S** | 5.3 | 4.2 | 1.1 | 0.1 | 0 | 0 | **10.8** | 1.9 |
| **SW** | 2.4 | 3.8 | 2 | 0.3 | 0 | 0 | **8.6** | 2.6 |
| **W** | 2.1 | 9.1 | 5.6 | 0.2 | 0 | 0 | **17** | 2.9 |
| **NW** | 1.6 | 5.7 | 3.9 | 0.1 | 0 | 0 | **11.3** | 2.9 |

|  |  |
| --- | --- |
| **Direction** | **Mean Speed**  **(m/s)** |
| **N** | 2.5 |
| **SE** | 1.8 |
| **SW** | 2.6 |
| **NW** | 2.9 |